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(54) Title: A TRUNCATED KERATINOCYTE GROWTH FACTOR (KGF) HAVING INCREASED BIOLOGICAL ACTIVITY

(57) Abstract

The present invention relates to a keratinocyte growth factor fragment, KGF_{des1-23}, that is composed of a portion of an amino acid sequence of mature, full length keratinocyte growth factor, KGF₁₆₃. The portion possesses at least a 2-fold increase in mitogenic activity as compared to a mature, recombinant keratinocyte growth factor, rKGF, but lacks a sequence comprising the first 23 amino acid residues, C-N-D-M-T-P-E-Q-M-A-T-N-V-N-C-S-S-P-E-R-H-T-R- of the KGF₁₆₃ N-terminus. The present invention also relates to a DNA molecule encoding KGF_{des1-23}, an expression vector and a transformed host containing the DNA molecule, and a method of producing KGF_{des1-23} by culturing the transformed host. The present invention further relates to a conjugate of KGF_{des1-23} and a toxin molecule, and the use thereof for treatment of hyperproliferative disease of the epidermis. Moreover, the present invention relates to a therapeutic composition containing KGF_{des1-23} and a pharmaceutically acceptable carrier and the use thereof for wound healing purposes.

	Long Form Start	CHO Site
sequence	1 5 10 15 CYS-ASN-ASP-MET-THR-PRO-GLU-GLN-MET-ALA-THR-ASN-VAL-ASN-CYS-	
	16 20 25 30 SER-SER-PRO-GLU-ARG-HIS-THR-ARG-SER-TYR-ASP-TYR-MET-GLU-GLY-	
sequence	31 35 40 45 GLY-ASP-ILE-ARG-VAL-ARG-ARG-LEU-PRE-CYS-ARG-THR-GLN-TRP-TYR-	
sequence	46 50 55 60 LEU-ARG-ILE-ASP-LYS-ARG-GLY-LYS-VAL-LYS-GLY-THR-GLN-GLU-MET-	
sequence	61 65 70 75 LYS-ASN-ASN-TYR-ASN-ILE-MET-GLU-ILE-ARG-THR-VAL-ALA-VAL-GLY-	
sequence	76 80 85 90 ILE-VAL-ALA-ILE-LYS-GLY-VAL-GLU-SER-GLU-PHE-TYR-LEU-ALA-MET-	
sequence	91 95 100 105 ASN-LYS-GLU-GLY-LYS-LEU-TYR-ALA-LYS-LYS-GLU-CYS-ASN-GLU-ASP-	
sequence	106 110 115 120 CYS-ASN-PRE-LYS-GLU-LEU-ILE-LEU-GLU-ASN-HIS-TYR-ASN-THR-TYR-	
sequence	121 125 130 135 ALA-SER-ALA-LYS-TRP-THR-HIS-ASN-GLY-GLY-GLU-MET-PRE-VAL-ALA-	
sequence	136 140 145 150 LEU-ASN-GLN-LYS-GLY-ILE-PRO-VAL-ARG-GLY-LYS-LYS-THR-LYS-LYS-	
sequence	151 155 160 GLU-GLN-LYS-THR-ALA-HIS-PRE-LEU-PRO-MET-ALA-ILE-THR	